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Effects of Transitional Care Management on Hospital Readmissions

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Executive Summary

Introduction of the Problem

Hospital readmissions are linked to increased patient morbidity and mortality. Primary care providers are challenged to identify a way in which these readmissions can be decreased. McMillan, Trompeter, Havrda, and Fox (2013) identified communication as a barrier that was exemplified by 21% of the study patients being discharged prior to notification of the primary care provider. Transitional care management (TCM) services can allow providers an opportunity to meet with patients just after discharge from the hospital to assess their needs and address individualized ways to prevent readmission.

At a local Midwestern primary clinic, the staff identified a specific lack of communication between those providers who admit patients to the hospital and the patients' primary care providers. The clinic had utilized a process to meet transitional care management guidelines for patients admitted under hospitalists, but there was a lack of continuity across all services. The communication gap between providers was especially problematic upon hospital discharge. The primary care providers had the tools necessary to address these needs, but communication among providers could be improved through implementation of TCM services.

Literature Review

Transitional care management occurs most often after patients have experienced a medical crisis requiring hospital admission followed by an appointment with the primary care provider. The Agency for Healthcare Research and Quality has led a push for altering modifiable factors that may affect readmissions (Roper et al., 2015). Successful transitional care management consists of a multitude of interventions used in coordination with each other which take place from the moment the patient is admitted to the hospital through the 29th day post

discharge. Grafft et al. (2010) displayed reductions in 30- and 90-day readmission rates following the implementation of care transition interventions. The notification of the PCP of the patient's admission is a benchmark in successful transitional care.

Transitional care services can provide a continuum of care that addresses the needs of patients individually to successfully reduce readmissions. Primary care providers are often dissatisfied with the care transitions that take place, with more than 50% of patients failing to visit a physician's office between the time of discharge and rehospitalization (Roper et al., 2015).

Readmissions to the hospital are costly for payers and hospitals. Gardner et al. (2014) found the implementation of a care transitions intervention in a Medicare population was associated with an average of $3,752 cost avoidance per patient who received the intervention. In addition to lower 6-month rates of hospital admissions, emergency visits and observation stays also decreased. Cost analysis is critical in addressing the relevance and effectiveness of transitional care management.

Additionally, Grafft et al. (2010) did not identify a difference in readmission rates between general medical patients and follow-up appointments compared to those without follow-up appointments. However, these authors did not evaluate the timing of follow-up appointments in relation to readmission rates. In fact, Kashiwagi et al. (2012) found that follow-up within 7 days of discharge helped decrease readmission rates.

Significant financial burdens for patients, payers, and health care as a whole may result from inadequate transitions from acute care settings to the community. Approximately $15 billion per year is spent in the care of Medicare patients who are readmitted within 30 days of discharge. A study that tested the Transitional Care Management with Medicare beneficiaries

demonstrated a total health care savings for intervention vs. control patients were $3000 per patient over 24 weeks (2011).

Methodology

The primary aim of this project was to develop and execute a protocol for expanding primary care provider notification of hospital admissions to improve transitional care management services and decrease patient readmissions. The goal of collaboration between the project development team and healthcare providers within the clinic was to yield education to enhance transitional care management following hospital discharge based on best practices.

The target population for this project was the readmission rates of eighty adult patients 18-89 years of age who were discharged from the hospital to their home. The principal investigator was given permission from the Director of Clinical Research and the Director of Privacy at a large Midwestern health clinic. The Institutional Review Board at Southern Illinois University at Edwardsville approved this project with an exempt status prior to project implementation.

Under the project protocol, primary care providers were expected to be notified of inpatient admissions within 24 hours and of discharges to the home within 24 hours. Notification was expected to occur by electronic messaging available within the electronic health record, Touchworks Application.

Analysis of the retrospective data was completed using Microsoft Excel and SPSS Statistics 25® software. Specific demographic data included patient age, sex, and admission diagnoses. Inferential statistical analysis was used to determine the probable occurrence of hospital readmissions on the three independent variables following the transitional care management protocol.

Evaluation

The primary outcome measure of this project was avoiding hospital readmission. The patient information required for this study included the patient's medical record number, age, sex, hospital admission diagnosis, hospital admission date, hospital discharge date, date of communication with the patient or family, and the date of the primary care hospital follow up appointment. Additionally, the presence or absence of a 30-day readmission was monitored.

The three independent variables in this project included primary care notification of the hospital admission and discharge, communication with the patient or family within 48 hours of discharge, and the presence of a primary care follow up appointment within 14 days of discharge. The dependent variable was the absence of a 30-day hospital readmission.

The initial study population was N = 311 patients, reduced by 44 after excluding 28 patients discharged to extended care and 16 who expired in the hospital. The final analysis (N = 267) showed 83% of discharged patients avoided hospital readmission. Binary logistic regression was performed to determine which independent variables (PCP notification within 24 hours, 48 hour follow up phone call, and 14 day follow up appointment) are predictors of the absence of a 30-day hospital readmission. Although the findings of this binary logistic regression model were note statistically significant, the findings were clinically relevant. If the PCP was notified within 24 hours of discharge, 45% of patients (N = 120) were less likely to have a readmission within 30 days (Exp[B]) = 1.452, 95% CI [.992, 2.288].

Impact on Practice

There is a fragile time period of transition from the acute care setting to the patients' home within the community. This project focused on development and implementation of a transitional care management process that helped to eliminate strain among involved providers.

The transitional care management protocol was easy to use with positive adherence to the notification techniques. The improved communication among providers may help to improve patient outcomes by reducing hospital readmissions.

As the transitional care management protocol is continued in practice, the expectation is for 30-day hospital readmissions to continue to decrease with improved primary care provider follow up. This project may be replicated in practice to improve outcomes clinic-wide. A larger study with expanded patient populations and a greater number of providers involved in using this protocol may be performed to yield relevant statistical findings. While expanding the project for a greater sample size may be fairly calm among practices, the outcomes may be significant.

Conclusions

Hospital readmissions are a substantial problem in patients especially those who are of advanced age or with chronic conditions. This project can continue to be used to improve provider communication in the outpatient setting and expand services to patients upon hospital discharge. Although the statistical findings within the project did not yield significant results, best practice is to provide continuity of care and make an effort to reduce readmissions. Reducing hospital readmissions has the opportunity to positively impact patient outcomes as well as improve health care provider delivery systems. The data collection and analysis of this project may be useful in further development of transitional care management protocols at this large Midwestern health clinic.

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